

Abstract:

Utilizes pre-processing (pre-filtering) of target data in order to facilitate and enable robust extraction of a watermark signal. With the present invention the watermarked data is pre-filtered using knowledge of the watermark signal. That is, utilizing knowledge of the characteristics of the watermark signal (for example that it falls in a certain frequency range), aspects or portions of the signal that do not carry the watermark signal are eliminated by filtering. Such filtering can amplify the watermark signal and/or simultaneously reduces the strength of the original (host) content or noise in the data signal that contains the watermark. That is, pre-filtering increases the signal-to-noise ratio of the watermark signal and facilitates the watermark extraction steps (detection and decoding). With the present invention it is possible to extract weak watermark signals from target data.

DO NOT FILE